

REMARKS

Claims 1 and 4-22 are pending in the present application. Claims 23-40 are canceled and claims 1, 5, 17, 18, 21 and 22 are amended herein. No new matter has been added. Applicant respectfully requests reconsideration of the claims in view of the following remarks.

Claims 1, 4-9 and 17-22 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Morford, *et al.* (U.S. Patent No. 7,496,661, hereinafter “Morford”). In addition, claims 10-16 and 23-40 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Morford, in view of Melaku, *et al.* (U.S. Patent Application Publication No. 2003/0074443, hereinafter “Melaku”). Applicant respectfully traverses these rejections.

The Applicant has amended the claims as stated above, has reviewed the newly cited references, and respectfully submits that the amended claims 1 and 4-22 are patentable for at least the following reasons.

Claim 1 of the present application relates to a method for providing QoS guarantee. In the method, the service control equipment notifies the changes of the service traffic flow when the service session is initialized, when the flow of the session changes and when the session is ended. The edge router obtains the service traffic flow information of a service traffic flow from the service control equipment so as to update dynamically the table entries of the service traffic flow classification table according to the obtained service traffic flow information. At a downlink interface of the edge router, the service traffic flows entering into a core network are classified and conditioned according to the service traffic flow classification table. Then the edge router forwards the processed service traffic flows via an uplink interface of the edge router according to the attributes of the label switching paths.

Morford relates to adaptive application-aware selection of differentiated network services. In Morford, a traffic management device 130 is positioned between a router 22 and an access network. As disclosed in Col. 7 Lines 7-45 of Morford, the device 130 is utilized to monitor the performance of network applications and mark outbound data flows associated with the network applications for differentiated services across the network 50. When the performance of a network application drops below a threshold, the device 130 can mark the data flows associated with the application for a higher service. More particularly, as shown in Figures 4 and 5 of Morford, the device 130 can monitor and analyze the bidirectional packets and construct a flow object based on the analysis. When a packet is passed, the device 130 identifies the traffic class according to the constructed flow object and detects the changes to the flow to update the flow object. As can be seen, the management of traffic is performed within the device 130 itself, without any interaction with the service control layer of the network.

The Applicant notes that the device 130 is regarded by the Office Action as equivalent to the service control equipment as claimed in the present application. The Applicant respectfully disagrees. As disclosed in Figures 1, 2A and 2B, the traffic management device 130 is positioned between a router 22 and an access network, such a position is similar to that of an edge router in the art, and has nothing to do with the service control layer of the network. In other words, the traffic management device 130 is not configured in the service control layer of the network, and thus can not be regarded as a service control equipment of the service control layer.

In summary, Morford is different from the solution of amended claim 1 of the present application in at least the following aspects:

1. In amended claim 1 of the present application, the edge router interacts with the service control equipment to obtain the service traffic flow information so as to update dynamically the table entries of the service traffic flow classification table.

In contrast, in Morford the traffic management is performed in the traffic management device 130 of Morford and does not involve interaction with the service control layer of the network.

2. In amended claim 1 of the present application, the changes of traffic flow are notified to the edge router in the following occasions such as when the service session is initialized, when the flow of the session changes and when the session is ended.

In contrast, in Morford, whenever a data packet is passed, the device 130 has to monitor and analyze it to update the flow object, which is a great burden to the device 130. In the present application, such works are done by the service control equipment and the changes of traffic flow are notified to the edge router in several occasions. This greatly reduces the burden of the edge router.

In view of this, amended claim 1 is not anticipated by Morford. Based on at least the same reasons, the apparatus claims 17 and 18, as well as the dependent claims 4-16 and 20-22, are not anticipated by Morford, either.

As summarized from above, Morford does not disclose or suggest a solution comprising “obtaining, at the edge router, service traffic flow information of a service traffic flow from a service control equipment, the service control equipment notifying the changes of the service traffic flow to the edge router in one or more of the following occasions: when a service session is initialized, when a service traffic flow of the service session changes, or when the service session ends.”

Melaku relates to Last Mile QoS Broker (LMQB) for multiple access networks. As disclosed in, for example, Paragraph [33] of Melaku the LMQB 102 monitors classified traffic from various wireless and wireline access networks and selects an access network to deliver service to the end user based on user consent, policies, and the like. That is, the traffic control of Melaku is on the user level instead of the traffic flow level. In addition, Melaku is also silent on the above technical features that are lacked in Morford.

Therefore, the amended claim 1 of the present application can not be rendered obvious by Morford in view of Melaku.

Based upon at least the above reasons, the Applicant respectfully believes that the amended claim 1 of the present application is patentable over Morford in view of Melaku under 35 USC § 103. Based upon at least the same reasons, the apparatus claims 17 and 18, as well as the dependent claims 4-16 and 20-22, are also patentable over Morford in view of Melaku under 35 USC § 103.

To this end, it can be respectfully believed by the Applicant that the above comments and amendments shall render the objections of the Examiner to be overcome and withdrawn in order for an allowance.

Respectfully submitted,



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